BASIN 14: Stevens River, Waits River, Wells River and Ompompanoosuc River

Including the following sites:

Lower Falls of Union Village	Ompompanoosuc River, Thetford
Upper Falls of Union Village	Ompompanoosuc River, Thetford
West Branch Falls	Ompompanoosuc River, Thetford
Covered Bridge Falls	Ompompanoosuc River, Thetford
Boltonville Falls	Wells River, Newbury
Barnet Falls	Stevens River, Barnet
Old City Falls Ravine	Old City Branch, Strafford

This is an elongated basin in eastern Vermont that combines five different watersheds between Thetford and Barnet. It is a hilly rather than mountainous part of the state with few elevations much over 2,000 feet and much of the land cleared for farming. Hence, all the falls are on middle-sized alluvial streams and not on small mountain or headwaters streams.

Most of the falls and gorges in this watershed are small or medium-sized sites. A number of them are of moderate importance because they are of high quality or have some special features. Two of them are large spectacular sites.

This basin is not one that we know well personally and we do not have any feeling for how many other sites might exist that have not been studied. The maps do not show much very steep terrain along the major streams, and therefore, large falls and gorges may be uncommon here, and most of the major sites already known.

Report 77, Lower Falls of Union Village, Ompompanoosuc River, Thetford, Orange County, Vermont.

Site E, surveyed 6 October 1983 by P.F. Zika.

Several small cascades.

Atlas map 22, Strafford 15' quadrangle. Drive north from Union Village to the Corps flood control dam. Cross the dike and turn north on a hidden road behind a brick building; 0.9 miles down this road is a turnoff to the left (west) for a picnic area. The cascades are a short walk to the west of the parking area. The property is in public ownership - The U.S. Corps of Engineers.

* * *

The site is in an open part of the river floodplain above the flood control dam and about one and one-quarter miles from Union Village. There is a picnic area, a few pines and oaks, and a big sandy bluff over the river.

The Ompompanoosuc is a medium-sized alluvial river, from 25-35 feet wide near the site. The water is fairly clean. Aquatic insects are present.

The site is about 200 feet long and consists of many small cascades from one to six feet high, interspersed with islands and low ledges. In many places the river is divided into several braided channels.

The rock is a grey-blue phyllite from the Devonian Gile Mountain formation. There are no potholes or sculptured rocks, but much of the rock near the bottom of the cascades is rippled. The rock is not limy.

The plants are ordinary. Mosses are scarce and no collections were made.

The picnic ground gets moderate use, but there is no trail from it to the cascades and they do not appear to be much of an attraction. In summer, the river is too low for swimming or fishing.

The cascades are attractive, but not special.

* * *

A hydroelectric project is proposed for the Union Village Dam; if the project is carried out, this area will be flooded.

* * *

LOWER FALLS OF UNION VILLAGE

Summary: Rural site, not near any buildings, nice rocks, average botany, moderately wild, clean site, clean water, popular for picnics, parties, spring fishing, scenery; threatened by a hydro project.

Vascular Plants of the Lower Falls of Union Village

Cornus amomum
Acer negundo
Apocynum sp.
Clematis virginiana
Agrostis sp.
Athyrium filix-femina
Hypericum perforatum
Galium mollugo
Fragaria virginiana
Aegopodium podagraria
Alnus rugosa
Carex torta ?
Corylus cornuta
Bidens sp.
Rubus idaeus
Rubus odoratus
Vitis riparia
Phalaris arundinacea
Rubus allegheniensis
Ulmus americana
Spiraea alba
Salix rigida
Salix discolor
Thalictrum polygamum
Pinus strobus
Quercus rubra
Oxalis europea
Solidago graminifolia
Solidago gigantea
Scirpus atrovirens
Viola sp.
Onoclea sensibilis
Matteucia struthiopteris
Panicum lanuginosum
Poa compressa
Tilia americana

Report 78, Upper Union Village Falls, East Branch of Ompompanoosuc River, Thetford, Orange County, Vermont.

Site F, surveyed 6 October 1983 by P.F. Zika.

Two small cascades.

Atlas map 22, Strafford 15' quadrangle. From Union Village drive over the flood control dam and turn north past the brick gatehouse. Drive two miles north to a small turnout on the left (west) side of the road. Wooden steps lead west over a small rise and to the site. The area is owned and managed by the U.S. Corps of Engineers.

* * *

The site is about two miles north of Union Village, in a wooded portion of the river valley, about 75 yards from the road. There are two old foundations, perhaps mills, on the west shore of the river.

The stream is moderate-sized, with a channel about 30 feet wide near the site. It seems well oxygenated and is clean or at most very slightly polluted. Stream insects are present.

The site contains two cascades. The upper one is three to six feet wide, and drops four feet, and has sloping rock walls ten feet high on either side of it. The water has undercut the west bank and at one point the whole stream flows under a large boulder. The channel then widens and divides. The lower cascade drops about eight feet into a large pool, and has a single vertical wall about ten feet high along the east bank.

The rock is blue-grey phyllite from the Gile Mountain formation, and is of lower Devonian age. There seem to be small amounts of lime. There are a few nice rippled rocks and a single pothole.

No unusual vascular plants were noted.

Bryophytes were almost absent from the sloping rocks of the west shore, but were present on the more vertical faces above the east shore. No collections were made.

The site seems to get moderate local use. It has a trail, steps, and a garbage can.

It takes a bit of scrambling around this site to see all the pretty angles on the cascades and rocks.

This site is threatened by a proposed hydropower project at the Union Village Dam. The project would flood most of these cascades, leaving only about four feet of the upper cascade above water.

UPPER UNION VILLAGE FALLS

* * *

Summary: Woodland setting, nice rocks, average botany, moderately wild, clean site, mildly polluted water, fair swimming, locally popular for scenery, picnics, parties, fishing; threatened by a hydroelectric project.

Vascular Plants of Upper Union Village Falls

Cornus amomum
Aster lateriflorus
Aster divaricatus
Dryopteris marginalis
Aquilegia canadensis
Betula papyrifera
Betula alleghaniensis
Acer saccharum
Fragaria virginiana
Lonicera morrowi
Athyrium filix-femina
Alnus rugosa
Galium sp.
Solidago gigantea
Solidago graminifolia
Plantago major
Poa compressa
Rubus allegheniensis
Populus deltoides
Osmunda regalis
Prunus virginiana
Tussilago farfara
Pinus strobus
Polypodium virginianum
Ulmus americana
Tilia americana
Panicum lanuginosum
Thelypteris phegopteris
Spiraea alba
Prunella vulgaris
Viola sp.
Taraxacum officinale
Pyrola elliptica
Rubus idaeus

Report 79, West Branch Falls, West Branch of the Ompompanoosuc River, Thetford, Orange County, Vermont.

Site D, surveyed 6 October 1983 by P.F. Zika.

A short series of small cascades.

Atlas map 22, Strafford 15' quadrangle. Take Vermont Route 132 north from Union Village; pass the flood control dam, go 1.2 miles, find a dirt road on the right, take it to the end and the cascades are downslope from you.

* * *

The site is a broad ravine in open pine-hemlock-hardwoods forest. There is another dirt road from the northeast. The nearest houses are about one-quarter mile away.

The West Branch of the Ompompanoosuc is a moderate-sized lowland river averaging 20-30 feet wide. It is fertile, has some algae and silt, and appears mildly polluted.

The site consists of several short cascades with drops of three to five feet each in the main channel. There is also a second channel, carved from rock, that is only filled at high water. There are many small potholes up to three feet across and low rock walls (ten feet high or less) on both shores.

The bedrock is a grey-blue phyllite from the lower Devonian Gile Mountain formation. It has nice ripples and quartz veins and appears to be slightly limy.

The vascular plants were ordinary.

Bryophytes were common and moderately diverse. No collections were made. The site looks like a good moss area and might yield some rarities if carefully studied.

The site is a local scenic attraction, and probably a good fishing place. It is certainly swimmable but doesn't appear very deep. It is quite clean.

The proposed hydroelectric project at Union Village Dam would partially flood this site, as well as two others, one of local and one of moderate importance.

We value the site for its pretty rocks and nice open woodsy flavor; its importance comes from the seclusion, the overall prettiness, and from its local popularity.

* * *

WEST BRANCH FALLS

Summary: Open woodland setting, nice rocks, average botany but perhaps a good moss place, moderately wild, clean site, mildly polluted water, fair swimming, locally popular; threatened by a hydroelectric project.

Recommendation: We recommend that the value of the hydroelectric project at Union Village Dam be carefully evaluated to see if it is worth the loss of two waterfall sites judged important on a statewide basis.

Vascular Plants of West Branch Falls

Betula alleghaniensis
Acer saccharum
Acer rubrum
Acer negundo
Dennstaedtia punctilobula
Aster macrophyllus
Aster lateriflorus
Aster puniceus
Aster umbellatus
Aster cordifolius
Aster novae-angliae
Athyrium filix-femina
Dryopteris marginalis
Glechoma hederacea
Equisetum arvense
Glyceria sp.
Aquilegia canadensis
Fragaria virginiana
Galium mollugo
Clematis virginiana
Carex spp.
Chrysanthemum leucanthemum
Hieraceum aurentiacum
Cornus stolonifera
Lonicera X bella ?
Muhlenbergia frondosa
Silene cucubalis
Daucus carota
Lysimachia nummularia
Tilia americana
Thelypteris palustris
Solidago flexicaulis
Solidago gigantea
Solidago graminifolia
Solidago juncea
Tussilago farfara
Taraxacum officinale
Thalictrum polygamum
Phalaris arundinacea
Spiraea alba
Prunella vulgaris
Salix bebbiana
Salix rigida
Solanum dulcamara
Poa compressa
Populus tremuloides
Tsuga canadensis
Ulmus americana
Phleum pratense
Trifolium repens
Pastinaca sativa
Rubus allegheniensis
Oxalis europaea

Report 80, Covered Bridge Falls, Ompompanoosuc River, Thetford, Orange County, Vermont.

Site G, surveyed 28 September 1983 by P.F. Zika.

A series of small cascades.

Atlas map 22, Strafford 15' quadrangle. From Thetford Center take the road going west to South Strafford, go 0.3 miles and park by the covered bridge. The cascades are 100 feet south of the bridge.

* * *

The site is at the edge of the Village of Thetford, with houses, old mill foundations, the covered bridge and an abandoned dam visible from the cascades. Below the site, the stream enters a shallow ravine with young hemlock-hardwoods forest.

The river is a moderate-sized lowland stream, about 30 feet wide above the site, with an alluvial channel. It is mildly polluted, and has foam and some algae.

Below the bridge, the channel is braided and there are a number of small cascades less than three feet high and several pools about eight feet across. There are also a few small potholes.

The rocks are grey and seem to be a sandy limestone, mapped as the lower Devonian Gile Mountain formation.

No unusual vascular plants were noted.

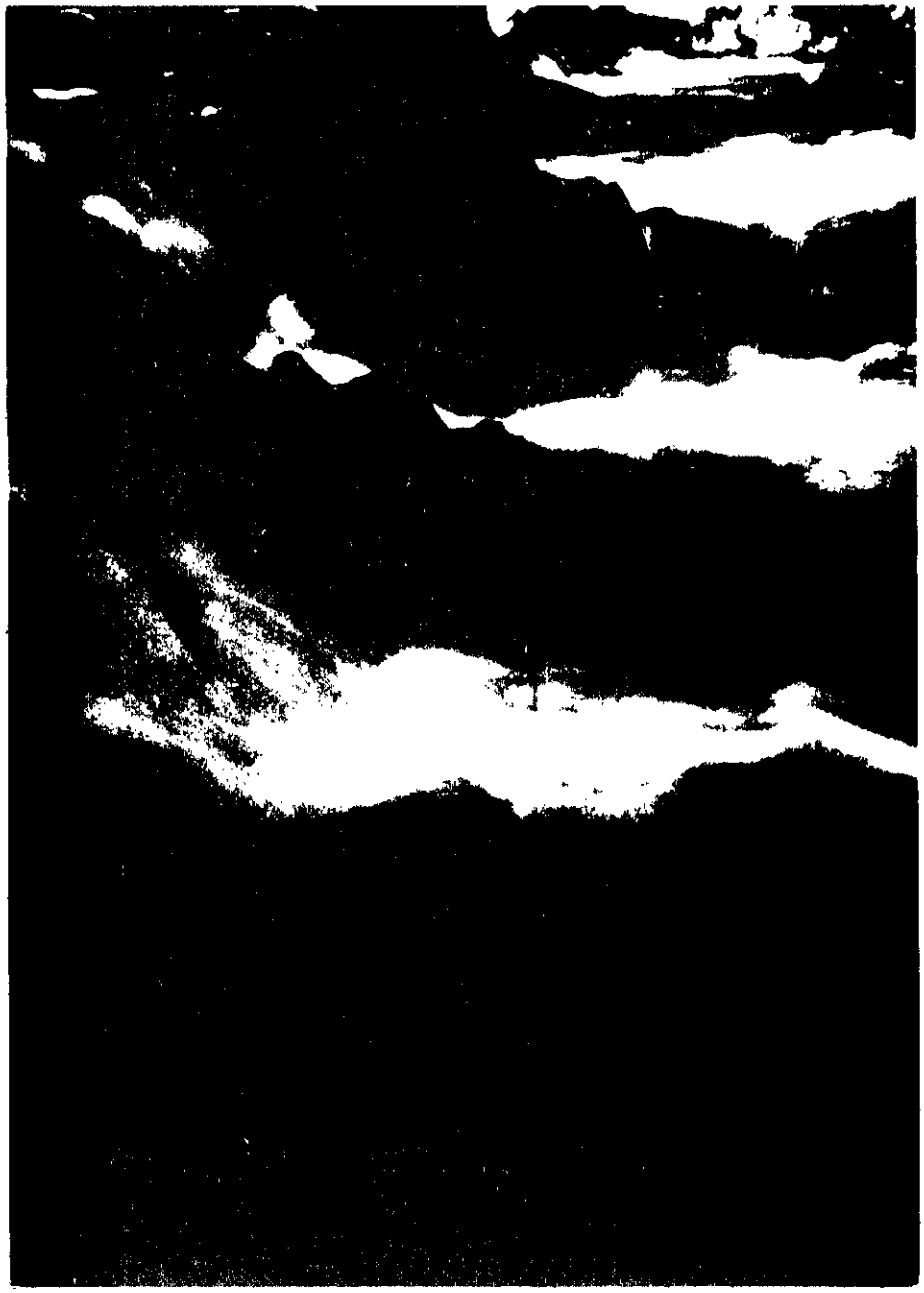
Bryophytes were not diverse or abundant. No specimens were collected.

The site gets local use. There is a parking place and a sign, possibly the only one of its kind in the state, that says there is a path where you may walk your dog. Probably average fishing.

* * *

Summary: Industrial and rural setting, average rocks, average botany, no wildness or privacy, clean site, mildly polluted water, local use for fishing and picnicking. Possibly threatened by a hydroelectric proposal.

See Appendix 4 for corrections and amplifications of this report.



COVERED BRIDGE FALLS

Vascular Plants of Covered Bridge Falls

Betula populifolia
Betula papyrifera
Betula alleghaniensis
Acer saccharum
Acer spicatum
Aster cordifolius
Aster lateriflorus
Aster divaricatus
Aster macrophylla
Aquilegia canadensis
Elymus riparius
Cystopteris bulbifera
Dryopteris marginalis
Cornus alternifolia
Athyrium filix-femina
Fraxinus americana
Impatiens sp.
Antenaria sp.
Fragaria virginiana
Cornus stolonifera
Amelanchier sp.
Alnus rugosa
Juncus tenuis
Erigeron canadensis
Tsuga canadensis
Ulmus americana
Pinus strobus
Spiraea alba
Taraxacum officinale
Rubus pubescens
Ostrya virginiana
Populus tremuloides
Vitis riparia
Parthenocissus sp.
Muhlenbergia sp.
Lonicera morrowi

Report 81, Boltonville Falls, Wells River, Newbury, Orange County, Vermont.

Site DD, surveyed 11 October 1983 by P.F. Zika.

Several small cascades and one large cascade below an abandoned power dam.

Atlas map 35, Woodsville 15' quadrangle. Take U.S. Route 302 west from I-91 and turn north at the sign for Boltonville. Within a couple hundred yards the road crosses the Wells River. The site is just downstream (east) of the bridge. Access is from the north side of the river.

* * *

The site is a former mill village with roads and houses on both sides of the river. There is an abandoned dam and penstock at the head of the cascades, and an abandoned power station below them.

The Wells River is a moderate-sized lowland river at the site, averaging 50-70 feet wide. The water looks clean but fertile and there is foam and some algae growth. It is classified as Class C.

From the bridge, the river first goes over the old dam and over some rocks and chunks of concrete, then down about ten vertical feet in a low-angle cascade, then down 25 vertical feet in a steep cascade. The last cascades narrow to about six feet wide and has 30 foot high rock walls. Below it there is a pool about 30 feet across. Below this there are ledges and wooded slopes and then the old powerhouse.

The rocks are mapped as schistose phyllite from the Albee formation, of Ordovician age. They are blue-grey, not limy, and bedded vertically. There is some ripple rock above the main cascade but no potholes or sculpture.

The vascular plants of the site are quite ordinary; only a very few species actually live on the rocky parts of the site.

The bryophytes were scattered and tended to be in inaccessible places. No specimens were collected.

The site receives some recreational use for swimming and fishing.

The main cascade is quite striking, especially for the way it narrows at the bottom. The site as a whole is marred by the old dam and the concrete in the river, but if it were cleaned up a bit and a good trail provided it might be a scenic attraction.

BOLTONVILLE FALLS

The power dam is currently being repaired, and should be in operation by May, 1984. The old penstock was replaced by a new one. The minimum flows required by the permit are said to be low, and hence, the cascades will no longer flow very much, except at high water.

* * *

Summary: Industrial setting, average rocks but an impressive cascade, average botany, no seclusion, some trash, local use for scenery, fishing, parties, and picnics. Flows threatened by a dam.

Vascular Plants of Boltonville Falls

Ulmus americana
Betula papyrifera
Populus tremuloides
Pinus strobus
Tsuga canadensis
Acer saccharum
Erigeron canadensis
Agropyron repens
Bromus inermis
Phleum pratense
Eupatorium maculatum
Eupatorium perfoliatum
Aster umbellatus
Melilotus alba
Galium mollugo
Salix rigida
Solidago spp.
Solidago rugosa
Solidago juncea
Muhlenbergia frondosa
Scirpus atrovirens
Calamagrostis canadensis
Phalaris arundinacea
Solanum dulcamara
Poa compressa
Quercus rubra
Achillea millefolium
Fragaria virginiana
Hypericum perforatum
Comptonia peregrina
Chrysanthemum leucanthemum
Acer rubrum
Salix alba or fragilis
Lonicera X bella
Antennaria sp.
Amelanchier sp.
Spiraea alba
Alnus rugosa
Salix discolor
Aegopodium podagraria
Aster cordifolius
Clematis virginiana
Abies balsamea
Cornus amomum
Elymus riparius
Rubus odoratus
Panicum lanuginosum
Solidago rugosa
Tilia americana
Corylus rostrata
Juglans cinerea
Viburnum lentago
Thalictrum polygamum
Mentha piperita
Thuja occidentalis
Vicia cracca
Rubus occidentalis

Report 82, Barnet Falls, Stevens River, Barnet, Caledonia County, Vermont.

Site N, surveyed 11 October 1983 by P.F. Zika.

Several small drops ending in a long and narrow shallow-angle diagonal cascade passing through the center of town. A unique site.

Atlas map 35, St. Johnsbury 15' quadrangle. The cascade is right in downtown Barnet. The best view of the long lower cascade is from the road running south from U.S. Route 5 on the east side of the stream. To get to the ravine below the cascade, you have to go through a yard and down a wet brushy slope.

* * *

The cascade is surrounded by houses and roads and has two bridges over it and two old mill foundations at the base of the ravine below it.

The Stevens River is a lowland stream with an alluvial channel ten to 15 feet wide below the cascades. The water is clear and perhaps mildly polluted at the site. Aquatic insects are present and some algae grow in the channel.

From the upper bridge, the stream descends through a few small cascades and then enters a 200 foot long rock chute that has cut diagonally across a large cliff. The chute is three to six feet wide. At the bottom of the chute, it spills sideways into three steep cascades, the largest of which is about 25 feet high. It then passes the mill sites and into the floodplain of the Connecticut River.

The rocks appeared to be a slatey phyllite and are mapped as Lower Devonian Gile Mountain formation. (Possibly the Meetinghouse member of the same formation is also present.) The bedding is nearly vertical. There are no potholes or sculptured rocks and no lime.

The vascular plants are ordinary. Bryophytes are common and moderately diverse in the ravine below the cascades. No collections were made.

The cascades are a popular scenic attraction. There is no swimming or fishing.

The main cascade is a unique and striking feature. So far as we know, there is no other long rock chute anything like this in the state. The site is not wild, but think what an exciting thing it is to have something like this in the center of town!

BARNET FALLS

A hydropower project is proposed for the site. We don't know what sort of development is planned but note that reducing the flow would reduce the visual impact and interest of the cascade*.

* * *

Summary: Urban setting, average rocks, spectacular and unique cascade, average botany, not secluded or wild, some trash, water mildly polluted, no swimming, popular scenic attraction, threatened by industrial development.

HIGH IMPORTANCE: Unique formation, very exciting and dramatic, popular scenic attraction.

*Note: The Barnet hydro project is presently (Summer, 1986) under construction. The project's minimum flow requirement over the falls should maintain some of their aesthetic value.

Vascular Plants of Barnet Falls

Rubus occidentalis
Rubus odoratus
Erigeron canadensis
Aster simplex
Aster cordifolius
Aster umbellatus
Aster lateriflorus
Solidago flexicaulis
Campanula rotundifolia
Phleum pratense
Agropyron repens
Erigeron strigosus
Thalictrum polygamum
Rorripa sylvestris
Barbarea vulgaris
Epilobium glandulosum
Lysimachia nummularia
Sagina procumbens
Mentha arvensis
Myosotis scorpioides
Muhlenbergia frondosa
Taraxacum officinale
Tussilago farfara
Eupatorium maculatum
Prunella vulgaris
Cornus amomum
Polygonum cuspidatum
Quercus rubra
Thuja occidentalis
Ulmus americana
Populus tremuloides
Tsuga canadensis
Betula papyrifera
Fraxinus americana

Report 83, Old City Falls Ravine, Old City Brook, Strafford, Orange County, Vermont.

Site 393, surveyed 12 October 1983 by P.F. Zika.

A large waterfall and several small cascades in an undisturbed wooded ravine.

Atlas map 28, Strafford 15' quadrangle. From the center of Strafford (a pretty town) take the right fork and head north; after a one-half mile turn right and follow that road uphill about 0.7 miles to a fork. Go left (northwest) and cross Old City Brook. A dirt access road on the left leads to a parking area and picnic ground. There is a sign for the trail to the falls.

* * *

The ravine is in deep hemlock woods, about 100 yards below the road and bridge. There are no houses nearby.

Old City Brook is a mountain stream, averaging about 15 feet wide, with clean cold water.

Descending the ravine from the road there are several small cascades about five feet high, then a falls about 20 feet high, then a steep cascade about 12 feet high, then a large pool, then a narrow rock chute about 30 feet long, and then another pool. There are rock walls 50-80 feet high on either side of the falls, forming a short, narrow (about 30 feet wide) rocky gap, that we choose not to list as a gorge simply because it is short.

The bedrock is mapped as the Waits River formation, of Devonian age, and may include volcanic material from the Standing Pond member of the formation. The rock is quite limy in places.

No unusual vascular plants or bryophytes were noted, but the rock walls where many of the mosses grow are inaccessible without a rope and need to be checked more thoroughly for rare species.

The falls receive heavy use by locals and tourists. The site is a popular recreation area, with picnic tables and trash barrels at the parking area, shelter from the rain, and a marked trail to the falls. Below the cascades, there are places to cool off in the water but no really fine swimming. The site was clean.

The site is close to the road but seems private and remote because of the deep woods. The falls and rock walls are very impressive and rank among our best four or five woodland falls.

* * *

Summary: Woodland setting, fine rocks, average botany, moderately wild and secluded, clean site, clean water, fair swimming, popular tourist area, good picnicking.

HIGH IMPORTANCE: Beautiful falls and rock walls, popular recreation site, undisturbed mountain woods.

Vascular Plants of Old City Falls Ravine

Tsuga canadensis
Plantago major
Aster cordifolius
Polystichum acrosticoides
Cystopteris bulbifera
Aegopodium podagraria
Heracleum maximum
Toxicodendron radicans
Thalictrum polygamum
Tussilago farfara